**Pressure Injury Root Cause Analysis**

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**Points criteria:**

| Criteria | Under performance<br><3 points per criteria | Basic<br>3 – 3.9 points per criteria | Proficient<br>4.0 – 4.4 points per criteria | Distinguished<br>4.5 – 5 points per criteria |
|---|---|---|---|---|
| **Required content objectives** | Content objectives are missing or sparsely covered. | Content objectives are not consistently addressed. Demonstrates minimal understanding of content. | Content objectives consistently addressed. Demonstrates understanding of content. | Content objectives consistently addressed. Demonstrates mastery of content. |
| **Academic writing standards** | Writing lacks scholarly tone & focus. Sparse content. Multiple grammatical, spelling, & factual errors. Reliance on bullet points rather than effective writing in speaker notes. 4 or more direct quotes per project. | Writing is unclear and/or disorganized. Inconsistent scholarly tone. Inadequate depth of content. Grammatical and spelling errors. No more than 3 direct quote of less than 40 words per project. | Writing demonstrates general exploration of content. Responses are clearly written using scholarly tone. Few grammatical and/or spelling errors. No more than 2 direct quote of less than 40 words per project. | Writing demonstrates comprehensive exploration of content. Responses are clearly written using scholarly tone. Rare grammatical and/or spelling errors. No more than 1 direct quote of less than 40 words per project. |
| **APA formatting** | References and citations have multiple errors or are missing. | References and citations have errors. | References and citations have few errors. | References and citations have rare errors. |

**Carefully review the above rubric on how points are awarded. Select one (not both) of the case studies listed on page three. Then, using academic writing standards and APA formatting of references and citations, respond to each of the learning objectives listed on page two. Each response should be 150-350 words in length, and should be entered below each objective on this document. Save the completed document as the assignment title with your name and submit to the dropbox.**

1. Define root cause analysis & its role in pressure injury prevention.

   Root cause analysis is the process of identifying a serious problem, e.g., pressure injuries, and collecting information to find out what led to the problem. Root cause analysis is commonly used in the hospital setting when a patient is found to have a facility-acquired pressure injury (PI). When the PI is identified a team who has been involved in the patient's care reviews documentation and speaks with everyone who has cared for the patient to find out if PI prevention has been followed adequately. The team reviewing the case will look for information such as: Was a skin assessment completed on admission? Was the patient identified to be at risk of developing a PI? Was the patient repositioned? How often? Were they on an appropriate support surface? When was the PI identified? They also look for any other contributing factors to the development of the PI such as non-compliance, being off the unit, hemodynamic instability, etc. This process helps the facility determine what exactly led to the problem and then processes can be refined or changed to help eliminate the problem from happening again in the future. By identifying the problem and addressing the cause, root cause analysis can help prevent future facility-acquired PI (Borchert, 2022).

2. Analyze one (not both) of the case studies from page three of this document and describe the system failures that led to the pressure injury in that situation. *Case study b chosen*

   This patient should have had a head-to-toe skin assessment on admission to the hospital to identify any current skin breakdown. Despite his risk assessment for skin breakdown identifying him as low risk, he also should have ongoing, consistent head-to-toe assessments to check for any signs of injury to the skin throughout his hospital stay. This may have helped identify impaired skin integrity sooner. He also should have had ongoing PI risk assessments throughout the hospitalization. Although he may have been low risk on admission, this can change as the clinical course unfolds. Risk assessment should be done on admission, after a change in patient condition, when transferring to a different level of care, as well as at regular intervals. Once the nurse noticed the deep tissue injury (DTI), he should have been on a turning or repositioning schedule in addition to having a specialized pressure redistribution mattress. A pressure injury prevention plan should also be implemented in the OR. Because patients typically can't be repositioned once surgery has started, they should be positioned differently before and after surgery and special care should be taken to protect bony prominences (Borchert, 2022).

3. Based on these findings, develop a comprehensive pressure injury prevention plan for the organization.

First, every patient that is admitted to the hospital will have a head-to-to skin assessment during their first nursing assessment. Head-to-toe skin assessments will be routinely conducted every shift on medical/surgical units and every 4 hours in the ICU. The assessment will require the nurse to visually inspect the skin as well as palpating the tissue to detect any changes in temperature or consistency or detect any edema. The nurse will note any additional pertinent risk factors such as dehydration, fragile skin, moisture exposure and the location of medical devices in relation to the skin (Borchert, 2022).

Second, patients will have a routine pressure injury risk assessment done on admission, with a change in patient condition and after transferring to a different level of care. The organization will utilize the Braden Scale which is one of three PI risk assessments that is considered valid and reliable (Borchert, 2022). The Braden Scale will be filled out at the beginning of each 12-hour shift while the patient is hospitalized as well as after transfer to the OR.

Third, patients who score 18 or below (mild to very high risk) on the Braden Scale will have routine repositioning and heels floated when in the bed. The HOB should also be 30 degrees or less unless eating or drinking. A high-risk patient may require every 2 hours turns and a mild risk patient may require verbal reminders or visual checks to ensure they have changed position. Because the sacrum is the area most at risk for PI, and pressure is greatest on the sacrum while supine, patients requiring manual turns will be turned from left to right to left, etc., and supine during meals. Incontinent patients should also be checked during repositioning (Borchert). According to a systematic review examining the use of foam dressings as a PI prophylactic, foam dressings may significantly reduce the rate of hospital acquired pressure injuries in the ICU (Sillmon et al., 2021). Therefore, patients scoring 18 or below on the Braden Scale will have a foam dressing applied to the sacrum. This should be changed when soiled and the skin underneath should be assessed during routine skin assessments. Patients at risk for PI should also have an appropriate support surface to help redistribute body weight and control moisture, temperature, and friction. The support surface may be foam, gel, fluid-filled or air-filled (Brienza et al., 2020).

4. Propose a plan of care to monitor the results of the organization wide, comprehensive pressure injury prevention plan.

First, there will be a standardized process for reporting a facility-acquired PI. It will be important to make sure staff on all units understand that this is where HAPIs are reported and that they understand how to do it correctly. The wound care nurse will do random chart audits to ensure protocols associated with the pressure injury prevention program (PIPP) are being followed and provide education when needed. Data regarding facility-acquired PIs will be collected regularly to monitor the incidence and prevalence of HAPIs. The wound care nurse can identify trends such as if a particular unit has more HAPIs than the other units. This data can also be compared to

similar organizations to find out how effective the PIPP is. Finally, a root cause analysis will be done on all HAPIs to identify areas of the PIPP that can be improved, or areas where further staff education is needed (Borchert, 2022). Ongoing reporting, monitoring and root cause analysis will allow the organization to continually learn and improve and provide better patient outcomes.

5. List the references used & cited in this assignment.
    a. *See the course syllabus for specific requirements on references for all assignments.*

References

Borchert, K. (2022). Pressure injury prevention: Implementing and maintaining a successful plan and program. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.), *Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management* (2nd ed., pp. 396-424). Wolters Kluwer.

Jaszarowski, K., & Murphree, R. W. (2022) Wound cleansing and dressing selection. In L. L. McNichol, C. R. Ratliff, & S. S. Yates (Eds.), Wound, Ostomy, and Continence Nurses Society core curriculum: Wound management (2nd ed., pp. 157-171). Wolters Kluwer.

Sillmon, K., Moran, C., Shook, L., Lawson, C., & Burfield, A. (2021). The use of prophylactic foam dressings for prevention of hospital-acquired pressure injuries. *Journal of Wound, Ostomy and Continence Nursing*, *48*(3), 211-218. DOI: 10.1097/WON.0000000000000762

Brienza, D. M., Tescher, A. N., & Call, E. (2020). Pressure redistribution: Seating, positioning, and support surfaces. In S. Baranoski & E. A. Ayello (Eds.), *Wound care essentials: Practice principles* (5th ed., pp. 270-305). Wolters Kluwer.

**Select just one (not both) to respond to the learning objectives listed on page two.**

a. A patient is admitted to home care after a cauda equina injury. The injury occurred 2 weeks ago at her home and she was then admitted to the hospital for severe lower back pain and numbness in the lower extremities. During the hospitalization, she developed urinary and fecal incontinence. Surgery was performed to repair the injury and after an unremarkable recovery, she is referred to home health care for physical therapy and skilled nursing care. The surgical site is well approximated without drainage. She has a comorbid condition of diabetes, continues to have numbness in the lower extremities along with urinary and fecal incontinence, and spends most of her day in a recliner chair. On admission to home care she has no skin conditions noted and her blood sugar is 165 mg/dL. After 2 weeks she develops a fever of 100.8 F. After 3 weeks of home care a 2.5cm length x 3.0cm width area of thick, dense eschar is noted over her sacral area, and she is referred to the WOC nurse for evaluation. Explain what risk factors led to the sacral wound and how you would set up her plan of care.

b. A 58 year old patient with a history of uncontrolled diabetes is admitted to the ED. He was discovered unconscious in his back yard by neighbors who called 911. He was transported to the ED of Acme Hospital where he regained consciousness. His blood glucose was 220 mg/dL, and his HbA1c is 13.2%. He is also experiencing mild chest pain, nausea, and tingling in his left arm. He is admitted to the hospital to rule out MI and to gain control of his blood glucose level. On admission, his risk assessment for skin breakdown indicated a 20 or very low risk. After several tests to determine the cause of his chest pain, he is diagnosed with coronary artery disease and is in need of

bypass surgery to open three coronary arteries. He goes to surgery on day three of his admission and is in the OR for 8 hours in a supine position. 18 hours after surgery, his nurse notices he has a painful deep purple bruised area in the coccyx region and contacts the WOC nurse to evaluate the lesion. At this point the patient is placed on an active alternating pressure powered air mattress. Five days later the bruised area in the coccyx begins to show evidence of an open wound, with measurements of 4.0 length x 1.0 cm width, and deep in the natal cleft there is dense slough with mild serous drainage. The surrounding skin is indurated with redness and evidence of a resolving bruise. Explain what risk factors led to the sacral injury and how you would set up his plan of care.

Risk factors that led to the patient's sacral injury include uncontrolled diabetes and hyperglycemia, possible impaired tissue perfusion related to CAD and the need for bypass surgery, being in the OR in a supine position for 8 hours and any increased immobility after surgery. I would encourage the patient to be as mobile as possible and turn from his left side to his right side every 2 hours. Because his PI is on his coccyx, I would advise him to stay out of the supine position as much as possible. I would also educate the patient and staff that the HOB should be 30 degrees or less unless he's eating or drinking. I would encourage good nutrition and eating plenty of protein with each meal. For his wound care, I would recommend irrigating the wound with saline using low pressure to cleanse the wound and help loosen the slough. Then I would recommend using a hydrogel dressing since the wound has mild exudate. This will help facilitate autolytic debridement. The wound should be monitored for excess moisture or dryness and the dressing should be changed every 1-3 days (Jaszarowski & Murphree, 2022).